



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-3397

JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

April 23, 2007

Certified Mail

7004 2510 0001 8616 6669

Sterling Steel Co.

Attn: Environmental Coordinator

121 Wallace Street

Sterling, Illinois 61081-0618

US EPA RECORDS CENTER REGION 5



1010261

Re: 1950500007 -- Whiteside County
Sterling Steel Co LLC
ILD005263157
RCRA Permit

Dear Environmental Coordinator:

The Illinois EPA and the United States Environmental Protection Agency (U.S. EPA) have compiled a list of all facilities deemed appropriate and important to address using the Resource Conservation and Recovery Act's (RCRA) Corrective Action Program. Because this set of 3,880 facilities has national remediation goals which will culminate in the year 2020, it is referred to as the 2020 Corrective Action Universe. Your facility is part of this 2020 Universe.

As a result, a final remedy needs to be in place (i.e., remedy construction completed) at your facility by 2020 (although actual attainment of cleanup goals through remedy implementation may take a while longer). If we have not already done so, we will be working with you to develop a plan and a schedule that achieves this goal before 2020.

Your facility has been included in the 2020 Universe because one or more of the following is true:

- It has a RCRA permit obligation,
- Illinois EPA and U.S. EPA agreed that it needs to be addressed under the RCRA Corrective Action Program, as it at one time operated a hazardous waste management unit subject to the interim status or permit requirements of RCRA.

Inclusion on this list does not imply failure on your part to meet any legal obligation, nor should it be construed as an adverse action against you. It only means that Illinois EPA and U.S. EPA have identified your facility – and every other facility in the 2020 Universe – as needing to complete RCRA Corrective Action if they have not done so already. Our national program goal is to address these cleanup obligations before the end of 2020. Accordingly, progress will be tracked for each facility in the 2020 Universe. The list of facilities will be posted on our web site at <http://www.epa.gov/correctiveaction> in the near future.

ROCKFORD – 4302 North Main Street, Rockford, IL 61103 – (815) 987-7760 • DES PLAINES – 9511 W. Harrison St., Des Plaines, IL 60016 – (847) 294-4000
ELGIN – 595 South State, Elgin, IL 60123 – (847) 608-3131 • PEORIA – 5415 N. University St., Peoria, IL 61614 – (309) 693-5463
BUREAU OF LAND - PEORIA – 7620 N. University St., Peoria, IL 61614 – (309) 693-5462 • CHAMPAIGN – 2125 South First Street, Champaign, IL 61820 – (217) 278-5800
SPRINGFIELD – 4500 S. Sixth Street Rd., Springfield, IL 62706 – (217) 786-6892 • COLLINSVILLE – 2009 Mall Street, Collinsville, IL 62234 – (618) 346-5120
MARION – 2309 W. Main St., Suite 116, Marion, IL 62959 – (618) 993-7200

Page 2

Illinois EPA will work to address remediation concerns at your facility in a manner consistent with your plans for the property. There are a variety of options available for completing the required remediation efforts at your facility, ranging from participation in Illinois EPA's Site Remediation Program to establishment of an Administrative Order on Consent with USEPA under Section 3008(h) of RCRA.

Illinois EPA would like to schedule a meeting with you in the near future to discuss remedial activities at your facility and achievement of the goal mentioned in the second paragraph of this letter. Please contact James K. Moore, P.E. of my staff at 217/524-3295 if you have any questions regarding this letter and to schedule a meeting to discuss the contents of this letter.

Sincerely,



Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:JKM:bjh\072572s.dot

cc: Hak Cho, USEPA, Region 5



RECEIVED

JUL 2 1994

**OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V**

July 26, 1994

12069,068

Mr. Gale Hruska
Office of RCRA
United States Environmental Protection Agency
Region V
77 West Jackson
Chicago, Illinois 60604-3590

**Northwestern Steel and Wire Company
Pre-RCRA Landfill
Replacement Monitoring Well MW-6R**

Dear Gale:

This letter summarizes the field activities related to the installation and development of a new monitoring well MW-6R to replace monitoring well MW-6 which was damaged in late 1993 during loading activities at Northwestern Steel and Wire Company (NSW).

The field activities were performed by Terracon Consultants, Inc. under supervision of Harding Lawson Associates' (HLA's) geotechnical engineer in accordance with the February 5, 1994 letter to the United States Environmental Protection Agency (U.S. EPA) from Mr. David Long (NSW). This letter outlined the proposed replacement monitoring well location, installation and development procedures per the applicable requirements in the approved RCRA Facility Investigation Work Plan. This proposal was subsequently approved by Mr. George Hamper, Chief, Illinois Section, RCRA Permitting Branch of the U.S. EPA in a letter to Mr. David Long.

This document has been prepared for the sole use of NSW and U.S. EPA, the only intended beneficiaries of our work. No other party should rely on the information contained herein without prior written consent of HLA.

BACKGROUND

MW-6 is located adjacent to an active railroad right-of-way. In November 1993, excavation equipment was being used to move slag around the vicinity of MW-6, when one of the pieces of equipment tore loose the protective concrete collar, severing the well's PVC riser pipe. An unknown amount of slag material sloughed inside of the well. Based on a field evaluation conducted by Mr. Timothy Bryan of HLA on February 1, 1994, HLA concluded that the existing monitoring well MW-6 is probably not salvageable for further groundwater sampling and analysis. HLA also recommended to abandon MW-6 and replace it with a new monitoring well MW-6R to be located in the vicinity of existing MW-6.



P-188

July 26, 1994
12069,068
Mr. Gale Hruska
United States Environmental Protection Agency
Page 2

Abandonment of Existing MW-6

On May 16, 1994, existing MW-6 was abandoned by overdrilling using 4.25-inch inside diameter (ID) hollow-stem auger technique. The well's PVC riser and screen, impermeable seals, and sand pack were drilled and destroyed so that the existing well does not act as a future potential migration pathway. A bentonite-cement grout was then used to backfill the borehole, sealing the total vertical depth of the original MW-6.

Installation of MW-6R

The new monitoring well was designated MW-6R to identify it as a replacement well. The location of MW-6R was selected at 10 feet west of the original MW-6 as shown in Figure 1. The well installation activities took place on May 16, 1994.

The borehole was drilled, using a 4.25-inch ID hollow-stem auger technique, to a total depth of 36.9 feet below ground surface (bgs). During drilling, groundwater was encountered at 14.5 feet bgs. The borehole was drilled using a stainless steel knockout plug to prevent the saturated soils from filling the borehole during well construction. No soil logging or sampling was performed, as geologic data was recorded during installation of the original MW-6. The monitoring well was constructed in substantial accordance with the specifications of the original MW-6. The well construction diagram of the original MW-6 is included as Attachment A of this letter.

The well was constructed of 2-inch ID, schedule 40, flush-threaded PVC casing and screen. The screen was manufacturer-slotted with a slot size of 0.010 inches. A 10-inch thick layer of muscarine gravel was first placed at the bottom of the borehole. The bottom of 10-foot long screen was placed at 36 feet bgs. A total riser length of 26.25 feet was used. Gravel pack was placed around and 2.2 feet above the top of the screen. Bentonite pellet seal was then placed to 21 feet bgs. This was the only approved modification to the specifications of the original MW-6 where bentonite slurry was used instead. A bentonite-cement grout was then poured into the remaining annulus to a depth of approximately 1.5 feet bgs. The remainder of the borehole was filled with concrete, blending into a four-inch thick and 2-foot square concrete collar. The well was capped with a vented well cap, and fitted with a 12-inch long, flush-mounted, locking steel protective casing which was embedded in concrete. The well casing was located approximately 7.5 inches below the surface of the concrete collar.

Drill cuttings generated during abandonment of MW-6 and installation of MW-6R were disposed of on-site.

Well Development

The monitoring well MW-6R was developed on May 17, 1994 after allowing the bentonite-cement grout to cure overnight. Static water level was measured prior to and following development. The well was developed using a stainless steel bailer until approximately 6 well volumes, i.e., 23.5

July 26, 1994
12069,068
Mr. Gale Hruska
United States Environmental Protection Agency
Page 3

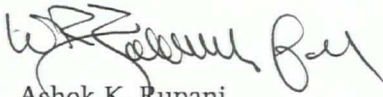
gallons, were removed. The well volume was calculated using the static water level in the well, the total well depth, and the cross-sectional area of the well casing. The pH, temperature, electrical conductivity, and visual appearance of the water were recorded periodically during development. Prior to development, the bailer was decontaminated with a tap water rinse, detergent wash, and finally a distilled water rinse.

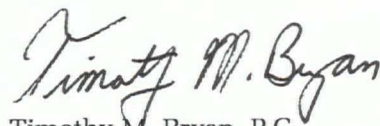
Considering that the groundwater samples from the original MW-6 have historically analyzed below method detection limits, the decontamination/development water generated during the abandonment of MW-6 and installation/development of MW-6R was stored in a 55-gallon drum and subsequently discharged into NSW's permitted wastewater discharge system.

Please contact any of the undersigned at 708-571-2162 if you have any questions or comments.

Yours very truly,

HARDING LAWSON ASSOCIATES


Ashok K. Rupani
Staff Engineer


Timothy M. Bryan, P.G.
Senior Hydrogeologist

AKR/TMB/jd
NS&W/0726941J.WP/4

Enclosures: Figure 1
Attachment A

cc (w/encl): David Long, Northwestern Steel and Wire Company
David Hurst, Harding Lawson Associates

Attachment A

PROJECT: PRE-RCRA LANDFILL

SITE: Northwestern Steel & Wire Co., Sterling, Illinois

COORDINATES: ---

DATE COMPLETED: AUGUST 15, 1988

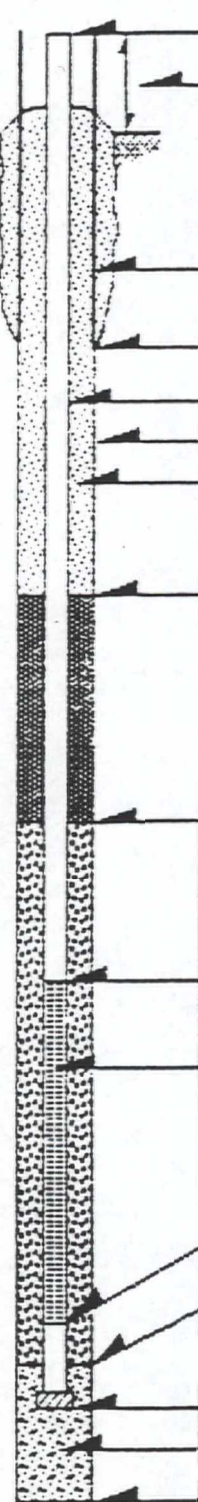
SUPERVISED BY: GARY A EYERMAN

WELL NO: MW-6

AQUIFER: UNCONSOLIDATED
OVERBURDEN
SOILS

GROUND SURFACE
ELEVATION

SEE
ATTACHED
BORING LOG



Elevation of reference point _____

Height of reference point above
ground surface _____

Depth of surface seal _____ 4.0 Ft

Type of surface seal Concrete _____

I.D. of surface casing 6 in _____

Type of surface casing Steel _____

Flush mounted casing _____

Depth of surface casing _____ 12 in

I.D. of riser pipe 2.067 in _____

Type of riser pipe PVC Sch. 40 TPI-LOG _____

Diameter of borehole 8 in _____

Type of filler Cement - Bentonite Grout _____

Elevation / depth of top of seal _____ / 21 Ft

Type of seal Bentonite Slurry _____

Type of gravel pack #3 Muscatine Gravel _____

Elevation / depth of top _____ / 24 Ft

of gravel pack _____

Elevation / depth of top of screen _____ / 26 Ft

Description of screen 0.010 in _____

Manufactured Slotted, Flush Threaded _____

I.D. of screen section 2.067 in _____

Elevation / depth of bottom of screen _____ / 36 Ft

Elev. / depth of bottom of gravel pack _____ / 36.6 Ft

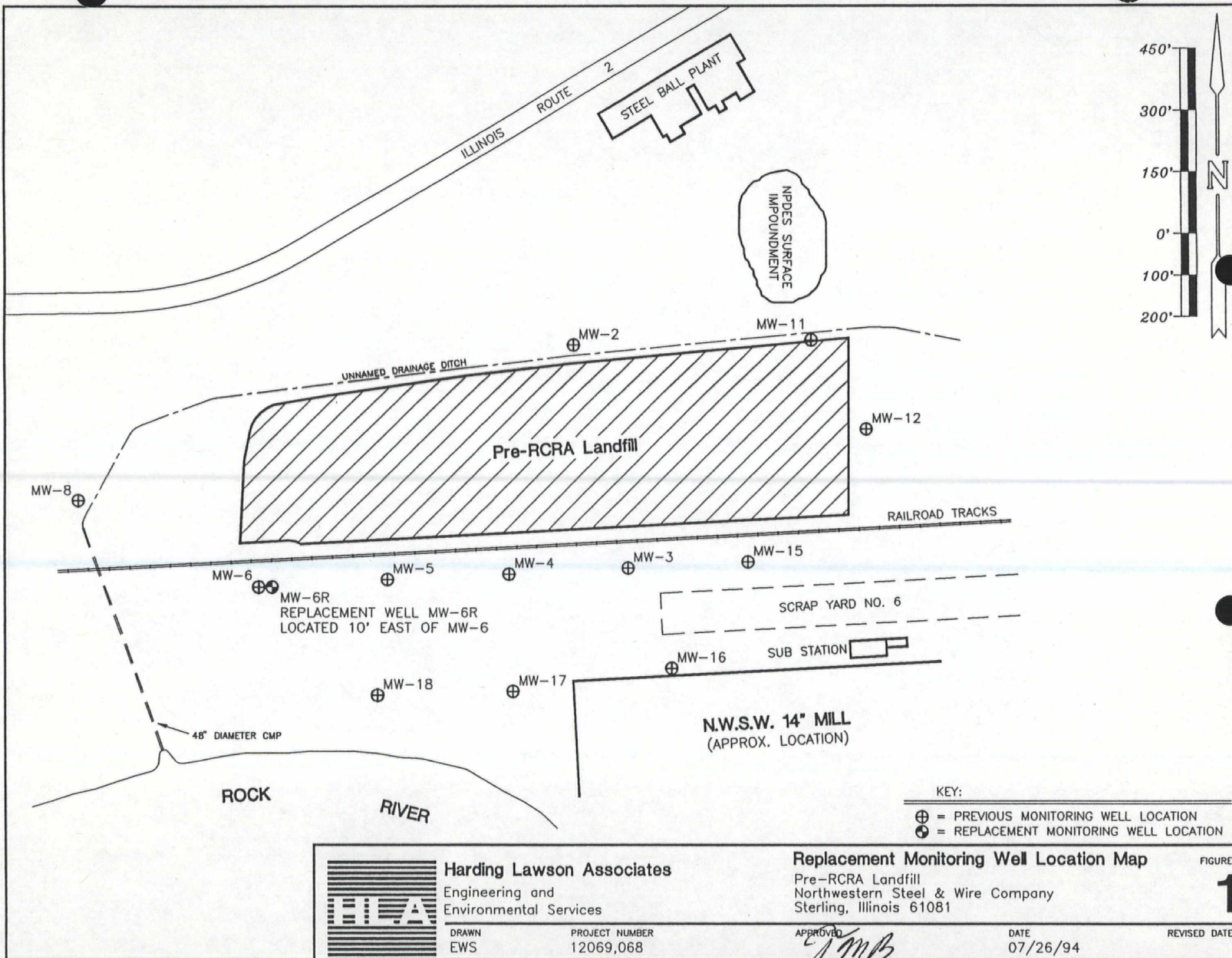
Elev. / depth of bottom of plugged _____ / 36 Ft

blank section _____

Type of filler below plug #3 Gravel Pack _____

Elevation of bottom of borehole (BOB) _____ / 36.6 Ft

Figure 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: June 16, 1992

SUBJECT: Review of Groundwater Data Taken During the RFI at Northwestern Steel and Wire Company, Sterling, Illinois (ILD 005 263 157) with Regard to Setting Trigger Levels for Corrective Action

FROM: Gale Hruska
Illinois Section, RPB

TO: Northwestern Steel and Wire Company files

Northwestern Steel and Wire's RFI revealed that there was contamination in the groundwater from the pre-RCRA landfill, however there was no indication of any releases to either the soil or the surface water. Vinyl chloride and cis-1,2 DCE were found at levels of up to several hundred ppb in the groundwater, while TCE was detected at levels of only a few ppb. Very low levels of vinyl chloride and cis-1,2 DCE were found in sediments in the Rock River, and no constituents were detected in the surface water.

Northwestern's CMS made the determination that at the levels measured, and because there is no groundwater usage (or is there ever likely to be) in the immediate area, there was less than 1×10^{-6} risk of exposure from the release. They propose that the preferred corrective measure for the unit would be continued monitoring, but no remediation. The CMS was reviewed by U.S. EPA's EMSL Laboratory, Carole Braverman, and Bill Enriquez. They basically concurred with Northwestern's risk assessment, thus lending support for the proposed corrective action alternative of continued monitoring.

The plume of contamination identified in the RFI is quite narrow. It flows from the pre-RCRA landfill to the Rock River, which is only a few hundred yards away. All land above the plume is on company property. The sampling results and the geology of the site demonstrate that this single pathway is almost certainly the only pathway of concern. It therefore seems appropriate to monitor the line of wells across the southern boundary of the landfill (Wells 3-6, and 15) to insure that there is no increase in the rate of release of constituents to the groundwater, and perhaps to monitor on an annual basis, some additional wells around the rest of the boundary of the landfill.

As part of the monitoring agenda, U.S. EPA would have to set: (1) trigger levels, that if they were exceeded, would require the company to redetermine if more active corrective action measures were required, and (2) levels below which the company could request the permit to be modified to end the monitoring. Setting the second set of levels seems to be straight forward. I believe that if the company samples for four (4) quarters, and finds no values exceeding the MCLs for the respective constituents, then they should be able to request a permit modification to discontinue monitoring. (I based the four quarters requirement on my experience after looking at 10 years of monitoring data from the Safety-Kleen facility in Elgin, Illinois.) Setting the first set of trigger levels poses a more difficult problem.

Northwestern sampled their wells in August and September of 1989, and in April of 1991. While each sampling event has recorded the existence of a plume of contamination, levels at each well often vary significantly from reading to reading, but leaving the shape of the plume basically unaffected. My first attempt to set trigger levels was to take an average of individual constituent levels measured at each well, and add two standard deviations to the average value, and then call this value the trigger value. There is a problem with this approach. The plume is very narrow and peaked, and the concentration in the plume rises rapidly over a short distance. As a result, if the plume physically shifts a small distance, the reading at an individual well could well increase substantially, without an increase in the total amount of pollutant actually exiting the unit. If a trigger level was set at one of these wells on the steep portion of the curve, it could falsely trigger the need for corrective action.

A second approach to setting trigger levels would be to integrate the concentration levels over a compliance point, consisting of all of the wells across the southern face of the landfill (i.e. wells 3 through 6, and well 15). This would in effect provide an approximate estimate of the total amount of pollutants leaving the landfill in the downgradient direction. Since the well spacing is constant, this implies that taking an average of all of the concentrations in these wells is also proportional to the total amount of pollutant leaving the landfill. This approach also has the advantage that it smooths out the end result, giving values which are easier to have trigger levels set that will not be so sensitive to the narrowness of the plume.

I tried out both of the above approaches out on the Northwestern data. Averaging at individuals would have triggered one hit if the trigger levels were set at the constituent average plus two standard deviations. This value was at near detection limit value, and indicates a false trigger. This type of trigger thus appears to work most of the time. The method of averaging over the face of the landfill at (basically) the compliance point gave reasonable values for trigger values, and is insensitive to low level trigger exceedances. Additionally, I used the compliance point averaging scheme over a second set of wells, parallel to the ones bordering the landfill, but farther downgradient. This analysis gave averages for the individual constituents which were shown to be not statistically different from those obtained at the SWMU border wells for the two major contaminants, vinyl chloride and cis-1,2 DCE. (The TCE values just failed to pass the T-test for means, probably because the TCE levels were so close to the detection limits.) These results could be interpreted as showing that the same total contamination passes through the plane defined by the wells bordering the landfill and that passing a more downgradient well, thus indicating "conservation of contaminants" in the plume.

After much thought, I believe that permit trigger levels could be reasonably presented utilizing both of these measures. I would suggest that a need for a new look at corrective action remediation be triggered by both having contamination levels in an individual well above the average concentration measured in the well during the RFI plus two standard deviations, and having the concentration of the constituent averaged over the five wells at the downgradient boundary of the unit be greater than the value found during the RFI plus one standard deviation.

-end-

Northwestern Steel & Wire

ANALYSIS OF GROUNDWATER DATA

Averaging at individual wells - 3 sampling events

WELL	vinyl Chloride Concentration (ppb)			mean	STD DEV	
	8-89	9-89	4-91		$\bar{x} + s$	$\bar{x} + 2s$
1				\bar{x}		
15	0	0	1	0.33 ppb	0.57 ppb	1.47
3	160	200	51	137	77	214
4	290	320	520	376	125	501
5	50	15	130	65	59	124
6	0	0	0	0	0	0
16	37	14	4	18	17	
17	240	230	110	193	72	
18	0	0	30	10	17	

CIS-1,2 DCE							
15	41	21	34	32	10	42	52
3	140	130	20	97	67	164	231
4	150	170	900	407	427	834	1261
5	120	66	140	109	38	147	185
6	0	0	0	0	0	0	0
16	92	72	58	74	17		
17	400	350	220	323	93		
18	10	8	54	24	26		

TCE							
15	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
4	0	0	1.2	0.4	0.7	1.8	
5	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0
16	7	6	43.6	5.5	1.7		
17	0	0	1.0	.33	.57		
18	0	0	0	0	0		

①

Averaging across the point of compliance - 3 sampling events
(2 points of compliance defined by various well sets)

NORTHWESTERN STEEL & WIRE CO Groundwater Monitoring

WELLS 3-6 & 15

DATE	Constituent	Values	number mean μ	standard deviation σ
8/89	Vinyl Chloride	0, 50, 290, 180, 0	104	127
	1,2 DCE	0, 120, 150, 140, 41	90	
	TCE	0, 0, 0, 0, 0	0	
9/89	Vinyl Chloride	0, 15, 320, 200, 0	107	
	1,2 DCE	0, 66, 170, 130, 21	77	
	TCE	0, 0, 0, 0, 0	0	
4/91	Vinyl Chloride	0, 130, 520, 42, 1	138	
	1,2 DCE	.5, 140, 900, 22, 34	219	
	TCE	0, 0, 1.2, 0, 0	0.24	

Wells 16, 17, 18

8/89	Vinyl Chloride	0, 240, 37	92
	1,2 DCE	10, 400, 92	167
	TCE	0, 0, 7	2.33
9/89	Vinyl Chloride	0, 230, 14	81
	1,2 DCE	8, 350, 72	143
	TCE	0, 0, 6	2.00
4/91	Vinyl Chloride	30, 110, 4	48
	1,2 DCE	54, 220, 58	110
	TCE	0, 1.0, 3.6	1.53

Northwestern Steel & Wire Co. Groundwater Monitoring

Ave & STD DEV of means (8/89, 9/89, 4/91 data) - wells 3-6 & 15

	$n=3$	μ		$\mu+2\sigma$
Vinyl Chloride	$(104+107+138)/3 = 116$		$\sigma = 19$	154
1,2 DCE	$(90+77+219)/3 = 129$		78	285
TCE	$(0+0+24)/3 = 0.08$		0.14	0.38

Ave & STD DEV of means (8/89, 9/89, 4/91 data) Wells 16, 17, 18

~~Vinyl Chloride ave = $(0+230+14)/3$~~

Vinyl Chloride ave	$= (92+81+48)/3 = 74$	$\sigma = 23$
1,2 DCE	$= (167+143+110)/3 = 140$	$= 28$
TCE	$= (0+0+7)/3 = 2.33$	4.04

Assumptions: Both populations normal, have same variance, random samples

TEST: Hypotheses: $\mu_1 = \mu_0$ ~~vs~~ $\mu_1 \neq \mu_0$ (Statistics Made Simple p.102)
at $\alpha = .05$

Vinyl chloride

$$t_{\alpha/2} (3+3-2) = t_{0.025} (4) = 2.776$$

$$\mu_1 = 116 \quad s_1 = 19 \quad \mu_2 = 94 \quad s_2 = 15 \quad n_1 = 3 = n_2$$

$$\sum (x_{1i} - \bar{\mu}_1)^2 = 708 \quad \sum (x_{2i} - \mu_2)^2 = 1049$$

$$s_p^2 = \frac{708 + 1049}{4} = 439.25$$

$$t = \frac{(116 - 94) - 0}{\sqrt{439 \left(\frac{1}{3} + \frac{1}{3} \right)}} = \frac{22}{17.1} = 1.29 < 2.776$$

Accept that 2 means do not differ

1,2,DCE

$$\mu_1 = \frac{129}{101}$$

$$\sigma_1 = \frac{78}{102}$$

$$\mu_2 = \frac{140}{111} \quad \sigma_2 = 63$$

$$\sum (x_{1i} - \mu_1)^2 = 12,325$$

$$\sum (x_{2i} - \mu_2)^2 = 1638$$

$$S_p^2 = \frac{12,325 + 1638}{4} = 3490$$

$$t = \frac{(129 - 140)}{\sqrt{3490 \left(\frac{1}{3} + \frac{1}{3} \right)}} = \frac{-11}{48.2} = -0.23 \geq 2.776$$

Accept that the two means do not differ

TCE

$$\mu_1 = 0.08 \quad \sigma_1 = .14$$

$$\mu_2 = 1.95 \quad \sigma = .40$$

$$\sum (x_{1i} - \mu_1)^2 = .672$$

$$\sum (x_{2i} - \mu_2)^2 = .323$$

$$S_p^2 = \frac{.672 + .323}{4} = .249$$

$$t = \frac{0.08 - 1.95}{\sqrt{.249 \left(\frac{1}{3} + \frac{1}{3} \right)}} = \frac{-1.87}{.407} = -4.59$$

Don't accept that means are different
(However, levels are so low that

January 31, 1991

Ms. Harriet Croke
Risk Assessment Specialist
U.S. Environmental Protection Agency, Region V
230 S. Dearborn
Chicago, IL 60604

RECEIVED
FEB 6 1991
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

Dear Harriet:

We are writing to summarize the discussions held during our recent meeting regarding the pre-RCRA landfill at Northwestern Steel and Wire Company (NSW). During the first part of the meeting we presented our rationale for use of an Alternate Concentration Limit (ACL) at the landfill. The discussion included a demonstration of the similarities between the NSW landfill and Case 4 from the document, *Alternate Concentration limit Guidance, Part I* EPA/530-SW-87-017. Specific similarities include: the contaminant plume has already reached the surface water body; and based upon surface water sampling data presented, the contaminants do not cause a statistically significant increase over background in the surface water concentrations of those contaminants.

After we described the site including contaminant concentrations and Case 4 in the ACL document, we proposed our points of exposure for the risk assessment to be as follows:

- * dermal contact with contaminated sediment and surface water during recreational activities at the point of ground water discharge into the Rock river;
- * ingestion of contaminated surface water during recreational activities such as swimming;
- * toxicity to bottom dwellers, vegetation, fish and other organisms in the river at the point of discharge;
- * inhalation of volatilized contaminants passing from ground water into surface water and then into the atmosphere above the discharge area;
- * bioaccumulation, and agricultural effects.

You indicated during the meeting that you wanted to further investigate the current Agency position on ACL's and identify the current knowledge of the ecological effects in the Rock River of DCE and vinyl chloride.

At the conclusion of the meeting, it was agreed that Yates & Auberle, Ltd. would proceed with the ACL study. The establishment of an ACL was not ruled out but at this time the Agency could not guarantee acceptance of a final value.

The approved CMS work plan places our client on an extremely tight schedule. We are committed to an ambitious undertaking of completing the risk assessment, ACL study, CMS investigation and additional field sampling by August. This time schedule calls for completion of the risk assessment and ACL study by March 1st. In order to meet this strict schedule, we need to communicate with you on an ongoing bases to receive your guidance and direction. We will contact you early next week for the above information. At that time we are also interested in receiving your comments on our risk assessment outline and procedure for calculating dermal risks.

We are currently in the process of estimating surface water and atmospheric concentrations of the contaminants as the ground water discharges into the Rock River. We are also reviewing Agency documents for exposure factors to use in the risk calculations. We hope to have this information available for review with you by next Friday.

In closing, we are anxious to proceed with the risk assessment and ACL investigation to allow the Corrective Measure Study to be completed on schedule. Your guidance and input can help us accomplish this goal. We appreciate your cooperation in this endeavor.

Sincerely,

William E. Pfannenstiel, C.I.H.
Manager, Industrial Hygiene Services

cc: Gale Hruska-U.S.EPA-Region V ✓
Robert W. Martin-Northwestern Steel and Wire Co.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V**

DATE: September 29, 1990

SUBJECT: RCRA Corrective Action Oversight Visit - Northwestern Steel and Wire Company, Sterling Illinois

FROM: Gale Hruska, 5HR-13
Illinois Permitting Section *GRA 9/29/90*

TO: Northwestern Steel & Wire Company Files
ILD 005 263 157

On September 25, 1990, I met with Robert Martin and David Long of Northwestern Steel and Wire Company (NSWC) and William Auberly and Robert Parsons of Yates & Auberly, Ltd., (consultants) to perform an oversight visit relative to the corrective action activities for the Pre-RCRA Landfill at NSWC. My observations are as follows.

The Pre-RCRA Landfill was covered with weeds, there were no visible signs of vegetative stress. The swail behind the landfill was full of weeds and grass. Runoff from the swail is channeled through a culvert to the Rock River. No surface water was visible anywhere on site. The wells located up gradient of the landfill were situated on concrete pads and had protective casings around them. They were all in excellent condition. The down gradient wells were located on concrete pads, and the well tops were recessed below the tops of the pads for protection, since they were in an area which has many close railroad tracks. There was a cover above them which was bolted into the pads. All wells at the site had padlocked caps to prevent unauthorized entry. Except for well number 18, which had been recently damaged by a front end loader all of the wells appeared to be in excellent condition. Well number 18 will be plugged, and a new monitoring well installed.

NSWC is now in the corrective measures study stage of their investigation. We discussed various issues related to the study. NSWC said that they had just sent in a workplan for the U.S. EPA's approval.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

**230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604**

REPLY TO THE ATTENTION OF:

54-12

AUG 20 1990

Certified Mail P593667809
Return Receipt Requested

Mr. David E. Long
Pollution Control Engineer
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Re: Approval of Draft RFI Report
and Request for CMS
ILD 005263157

Dear Mr. Long:

We have received your Phase 2 Draft RCRA Facility Investigation (RFI) Report, dated May 4, 1990. After a careful review of the report, as well as the Phase I and Phase Ia reports and their associated workplans and supplemental reports, the United States Environmental Protection Agency (U.S. EPA) has determined that the Northwestern Steel and Wire Company has completed the requirements of Section II.c. of the Federal portion of its Resource Conservation and Recovery Act (RCRA) permit by performing a complete RFI. These submissions demonstrate that there has been a release of hazardous constituents from the Pre-RCRA Landfill. They have also adequately quantified the nature and extent of the releases to the environment. In this context, the U.S. EPA also hereby accepts the Draft Phase 2 Report as the Final Phase 2 Report. No further RFI submissions are required, although the Company may submit further information if it believes such submissions are necessary.

Section II.d of the permit requires that the U.S. EPA determine whether or not corrective measures are required. In making this decision, we have utilized the recently proposed corrective action regulations which appeared in the Federal Register of July 27, 1990 (Volume 55, Number 145, pp 30798-30889), as guidance. The proposed regulation [§264.520 (a)] states that if hazardous constituents are released from a solid waste management unit into the environment in concentrations exceeding constituent-specific action levels, then a corrective measure study (CMS) must be performed. The action level for groundwater suggested in the proposed regulation for vinyl chloride is 2ppb, while that for 1,2-Dichloroethane is 5ppb. These levels are identical to the respective Maximum Contaminant Levels (MCLs) established in the water quality standards promulgated under §141.2 of the Safe Drinking Water Act.

Since the RFI for the Pre-RCRA Landfill has identified the above constituents in the groundwater contaminant plume in concentrations in the hundreds of ppb, the U.S. EPA hereby makes the determination that a corrective measures study with respect to remediation of releases of vinyl chloride and 1,2-Dichloroethane to the groundwater must be submitted by Northwestern Steel and Wire Company. In accordance with Section II.d. of the permit, a Required Scope of Work for Corrective Measures (SOW/CMS) is enclosed with this letter (Attachment I.) This SOW/CMS is taken from the Interim Final RCRA Corrective Action Plan (June 1988) EPA 530-SW-88028. (A copy of Sections §264.552 to §264.524 of the proposed corrective action regulations is also enclosed to provide additional guidance in the preparation of the CMS.)

In addition to the requirements in the SOW/CWMS, the following conditions are established:

- a. As required in Section II.d. of the permit, the U.S. EPA hereby establishes the groundwater protection standard for the corrective measure to be the MCLs identified above - 2ppb for vinyl chloride and 5ppb for 1,2-Dichloroethane.
- b. If the Company wishes to propose alternate concentration limits for the groundwater protection standard, a justification based on the criteria set forth in 40 CFR 264.94(b) must be submitted. The U.S. EPA will review the request, and it will respond in writing, either approving, disapproving, or approving with modifications the request. The facility will then amend and submit revisions to the CMS if they are needed.
- c. The Company must include a pump-and-treat alternative as one of its proposed corrective measures alternatives.
- d. If the Company proposes a no-further-action alternative, it must also provide an associated quantitative risk assessment in sufficient detail to allow the U.S. EPA to reproduce the Company's results and evaluate the conclusions. (Please note that the information presented in the RFI report was not adequate for this purpose.)
- e. In accordance with the conditions specified in Section II.d. of the permit, the Company shall submit the Corrective Measures Study within 90 days of the receipt of this letter. Alternatively, if the Company determines that there is insufficient time to complete the CMS within this period, it may request an extension by submitting for approval to U.S. EPA a workplan for performing the CMS. The workplan must contain time-and task-specific milestones, and it must be submitted within 30 days of the receipt of this letter.

If you have questions regarding this matter, please contact Mr. Gale Hruska of my staff, at (312) 886-0989.

Sincerely,

David A. Ullrich
David A. Ullrich, Acting Director
Waste Management Division

cc: Lawrence Eastep, IEPA

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery
(Extra charge) (Extra charge)

3. Article Addressed to:

Mr. David E. Long
Pollution Control Engineer
Northwestern Steel and Wire Co.
121 Wallace Street
Sterling, Illinois 61081

4. Article Number

P593 667 809

Type of Service:

- | | |
|---|--|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Return Receipt
for Merchandise |

Always obtain signature of addressee
or agent and DATE DELIVERED.

5. Signature — Address

X

6. Signature — Agent

X

NW Steel & Wire Co.

7. Date of Delivery

8/22/90

8. Addressee's Address (ONLY if
requested and fee paid)



P 593 667 809

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)
Mr. David E. Long

Sent to Pollution Control Engineer
Northwestern Steel & Wire Co.
Street and No. 121 Wallace Street

P.O., State and ZIP Code Sterling, IL
61081

Postage

\$

65

Certified Fee

.85

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing
to whom and Date Delivered

.90

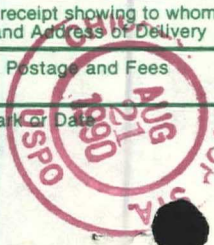
Return receipt showing to whom,
Date, and Address of Delivery

TOTAL Postage and Fees

\$

2.40

Postmark or Date



5HR-13;Gale Hruska, RPB IL Section

★ U.S.G.P.O. 1983-403-517

PS Form 3800, Feb. 1982

If you have questions regarding this matter, please contact Mr. Gale Hruska of my staff, at (312) 886-0989.

Sincerely,

ORIGINAL SIGNED BY
DAVID A. ULLRICH

David A. Ullrich, Acting Director
Waste Management Division

cc: Lawrence Eastep, IEPA

5HR-JCK-13/Gale Hruska;jhg 8/15/90 8/16/90

RCRA PERMITS	TYP.	AUTH.	PL CHIEF	IN. CHIEF	ML CHIEF	MN/WI CHIEF	OH. CHIEF	RPB CHIEF	O.R. A.D.D.	WMD DIR
INIT. DATE	8/16/90	8/16/90	8/16/90					8/16/90	8/17/90	8/20/90

ATTACHMENT I

- A. Scope of Work for the Corrective Measures Study
- B. Copy of 40 CFR 264.94

Scope of Work for a Corrective Measure Study
at
[Specify Facility Name]

Purpose

The purpose of this Corrective Measure Study (CMS) is to develop and evaluate the corrective action alternative or alternatives and to recommend the corrective measure or measures to be taken at [specify facility name]. The Owner/Operator [Respondent] will furnish the personnel, materials, and services necessary to prepare the corrective measure study, except as otherwise specified.

[Note: This scope of work is intended to foster timely, concise submissions by Owner/Operators. To achieve this goal, it is important when using the model scope of work to consider facility specific conditions. This scope should be modified as necessary to require only that information necessary to complete the Corrective Measure Study.]

Scope

The Corrective Measure Study consists of four tasks:

Task VIII: Identification and Development of the Corrective Measure Alternative or Alternatives

- A. Description of Current Situation
- B. Establishment of Corrective Action Objectives
- C. Screening of Corrective Measures Technologies
- D. Identification of the Corrective Measure Alternative or Alternatives

Task IX: Evaluation of the Corrective Measure Alternative or Alternatives

- A. Technical/Environmental/Human Health/Institutional
- B. Cost Estimate

Task X: Justification and Recommendation of the Corrective Measure or Measures

- A. Technical
- B. Environmental
- C. Human Health

Task XI: Reports

- A. Progress
- B. Draft
- C. Final

TASK VIII: Identification and Development of the Corrective Measure Alternative or Alternatives

Based on the results of the RCRA Facility Investigation and consideration of the identified Preliminary Corrective Measure Technologies (Task II), the Owner/Operator [Respondent] shall identify, screen and develop the alternative or alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

The Owner/Operator [Respondent] shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Report. The Owner/Operator [Respondent] shall provide an update to information presented in Task I of the RFI to the Agency regarding previous response activities and any interim measures which have or are being implemented at the facility. The Owner/Operator [Respondent] shall also make a facility-specific statement of the purpose for the response, based on the results of the RCRA Facility Investigation. The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

The Owner/Operator [Respondent], in conjunction with the U.S. EPA, shall establish site specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RCRA Facility Investigation, EPA guidance, and the requirements of any applicable Federal statutes. At a minimum, all corrective actions concerning ground-water releases from regulated units must be

consistent with, and as stringent as, those required under 40 CFR 264.100.

C. Screening of Corrective Measure Technologies

The Owner/Operator [Respondent] shall review the results of the RCRA Facility Investigation and reassess the technologies specified in the Task II report as approved by EPA and identify additional technologies which are applicable at the facility. The Owner/Operator [Respondent] shall screen the preliminary corrective measure technologies identified in Task II of the RCRA Facility Investigation and any supplemental technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations. Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration;

2. Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site); and

3. Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternative or Alternatives

The Owner/Operator [Respondent] shall develop the corrective measure alternative or alternatives based on the corrective action objectives and analysis of Preliminary Corrective Measure Technologies, as presented in Task II of the RCRA Facility Investigation and as supplemented following the preparation of the RFI Report. The Owner/Operator [Respondent] shall rely on engineering practice to determine which of the previously identified technologies appear most suitable for the site. Technologies can be combined to form the overall corrective action alternative or alternatives. The alternative or alternatives developed should represent a workable number of option(s) that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Owner/Operator [Respondent] shall document the reasons for excluding technologies, identified in Task II, as supplemented in the development of the alternative or alternatives.

Task IX: Evaluation of the Corrective Measure Alternative or Alternatives

The Owner/Operator [Respondent] shall describe each corrective measure alternative that passes through the Initial Screening in Task VIII and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Owner/Operator [Respondent] shall also develop cost estimates of each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Owner/Operator [Respondent] shall provide a description of each corrective measure alternative which includes but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures, and rough quantities of utilities required. The Owner/Operator [Respondent] shall evaluate each alternative in the four following areas:

1. Technical;

The Owner/Operator [Respondent] shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.

a. The Owner/Operator [Respondent] shall evaluate performance based on the effectiveness and useful life of the corrective measure:

i) Effectiveness shall be evaluated in terms of the ability to perform intended

functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and

- ii) Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.
- b. The Owner/Operator [Respondent] shall provide information on the reliability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:
- i) Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and
 - ii) Demonstrated and expected reliability is a way of measuring the risk and effect of failure. The Owner/Operator [Respondent] should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has

the flexibility to deal with uncontrollable changes at the site.

- c. The Owner/Operator [Respondent] shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:

i) Constructability is determined by conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). The Owner/Operator [Respondent] shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

ii) Time has two components that shall be addressed: the time it takes to implement a corrective measure and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

- d. The Owner/Operator [Respondent] shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

2. Environmental;

The Owner/Operator [Respondent] shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short- and long-term beneficial and adverse effects of the response alternative; any adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

3. Human Health and

The Owner/Operator [Respondent] shall assess each alternative in terms of the extent of which it mitigates short- and long-term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and potentially affected population. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or guidelines acceptable to EPA.

4. Institutional;

The Owner/Operator [Respondent] shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, state and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative.

B. Cost Estimate

The Owner/Operator [Respondent] shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (nonconstruction and overhead) costs.

a. Direct capital costs include:

- i) Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure;
- ii) Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;
- iii) Land and site-development costs: Expenses associated with purchase of land and development of existing property; and
- iv) Buildings and services costs: Costs of process and nonprocess buildings,

utility connections, purchased services, and disposal costs.

b. Indirect capital costs include:

- i) Engineering expenses: Costs of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;
- ii) Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;
- iii) Startup and shakedown costs: Costs incurred during corrective measure startup; and
- iv) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.

2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Owner/Operator [Respondent] shall consider the following operation and maintenance cost components:

- a. Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;
- b. Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;
- c. Auxillary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
- d. Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;
- e. Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;
- f. Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;
- g. Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accidental insurance; real estate taxes on

purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;

- h. Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and
- i. Other costs: Items that do not fit any of the above categories.

Task X: Justification and Recommendation of the Corrective Measure or Measures

The Owner/Operator [Respondent] shall justify and recommend a corrective measure alternative using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Tradeoffs among health risks, environmental effects, and other pertinent factors shall be highlighted. The U.S. EPA will select the corrective measure alternative or alternatives to be implemented based on the results of Tasks IX and X. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

A. Technical

1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;
2. Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proven effective under waste and facility conditions similar to those anticipated will be given preference;
3. Implementability - corrective measure or measures which can be constructed and operating to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and
4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Human Health

The corrective measure or measures must comply with existing U.S. EPA criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum

level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

C. Environmental

The corrective measure or measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

Task XI: Reports

The Owner/Operator [Respondent] shall prepare a Corrective Measure Study Report presenting the results of Task VIII through X and recommending a corrective measure alternative. [number] copies of the preliminary report shall be provided by the Owner/Operator [Respondent].

A. Progress

The Owner/Operator [Respondent] shall -at a minimum provide the EPA with signed, [monthly, bimonthly] progress reports containing:

1. A description and estimate of the percentage of the CMS completed;
2. Summaries of *all* findings;
3. Summaries of *all* changes made in the CMS during the reporting period;
4. Summaries of *all* contacts with representative of the local community, public interest groups or State government during the reporting period;
5. Summaries of *all* problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/ monitoring data, etc.

B. Draft

The Report shall at a minimum include:

1. A description of the facility;
 - a. Site topographic map and preliminary layouts.
2. A summary of the corrective measure or measures;
 - a. Description of the corrective measure or measures and rationale for selection;
 - b. Performance expectations;

- c. Preliminary design criteria and rationale;
 - d. General operation and maintenance requirements; and
 - e. Long-term monitoring requirements.
3. A summary of the RCRA Facility Investigation and impact on the selected corrective measure or measures;
- a. Field studies (ground-water, surface water, soil, air); and
 - b. Laboratory studies (bench scale, pilot scale).
4. Design and Implementation Precautions:
- a. Special technical problems;
 - b. Additional engineering data required;
 - c. Permits and regulatory requirements;
 - d. Access, easements, right-of-way;
 - e. Health and safety requirements; and
 - f. Community relations activities.
5. Cost Estimates and Schedules;
- a. Capital cost estimate;
 - b. Operation and maintenance cost estimate; and
 - c. Project schedule (design, construction, operation).

[Number] copies of the draft shall be provided by the Owner/Operator [Respondent] to U.S. EPA.

C. Final

The Owner/Operator [Respondent] shall finalize the Corrective Measure Study Report incorporating comments received from EPA on the Draft Corrective Measure Study Report.

[THE FOLLOWING FACILITY SUBMISSION SUMMARY MAY BE PLACED IN THE BODY OF THE ORDER OR PERMIT AND REMOVED FROM THE SCOPE OF WORK. NOT ALL OF THE ITEMS LISTED BELOW MAY BE REQUIRED AT EACH FACILITY.]

Facility Submission Summary

A summary of the information reporting requirements contained in the Corrective Measure Study Scope of Work is presented below:

<u>Facility Submission</u>	<u>Due Date</u>
Draft CMS Report (Tasks VIII, IX, and X)	[NUMBER] days after submittal of the final RFI
Final CMS Report (Tasks VIII, IX, and X)	[NUMBER] days after Public and EPA comment on the Draft CMS
Progress Reports on Tasks VIII, IX, and X	[MONTHLY, BI- MONTHLY]

July 26, 1982, as amended at
11, 1988]

-water protection stand-

operator must comply
as specified in the facili-
are designed to ensure
as constituents under
ed in the ground water
ed unit do not exceed
on limits under § 264.94
most aquifer underlying
nagement area beyond
pliance under § 264.95
pliance period under
Regional Administrator
this ground-water pro-
rd in the facility permit
ous constituents have
n the ground water.

t. 11, 1988]

ous constituents.

ional Administrator will
facility permit the haz-
tuents to which the
protection standard of
es. Hazardous constitu-
tuents identified in Ap-
Part 261 of this chapter
en detected in ground
ppermost aquifer under-
ated unit and that are
pected to be in or de-
ste contained in a regu-
ess the Regional Admin-
excluded them under
of this section.

ional Administrator will
pendix VIII constituent
f hazardous constituents
he facility permit if he
constituent is not capa-
a substantial present or
rd to human health or
ent. In deciding whether
exemption, the Regional
will consider the follow-

al adverse effects on
quality, considering:
sical and chemical char-
the waste in the regulat-
ing its potential for mi-

Environmental Protection Agency

(ii) The hydrogeological characteris-
tics of the facility and surrounding
land;

(iii) The quantity of ground water
and the direction of ground-water
flow;

(iv) The proximity and withdrawal
rates of ground-water users;

(v) The current and future uses of
ground water in the area;

(vi) The existing quality of ground
water, including other sources of con-
tamination and their cumulative
impact on the ground-water quality;

(vii) The potential for health risks
caused by human exposure to waste
constituents;

(viii) The potential damage to wild-
life, crops, vegetation, and physical
structures caused by exposure to waste
constituents;

(ix) The persistence and permanence
of the potential adverse effects; and

(2) Potential adverse effects on hy-
draulically-connected surface water
quality, considering:

(i) The volume and physical and
chemical characteristics of the waste
in the regulated unit;

(ii) The hydrogeological characteris-
tics of the facility and surrounding
land;

(iii) The quantity and quality of
ground water, and the direction of
ground-water flow;

(iv) The patterns of rainfall in the
region;

(v) The proximity of the regulated
unit to surface waters;

(vi) The current and future uses of
surface waters in the area and any
water quality standards established
for those surface waters;

(vii) The existing quality of surface
water, including other sources of con-
tamination and the cumulative impact
on surface-water quality;

(viii) The potential for health risks
caused by human exposure to waste
constituents;

(ix) The potential damage to wild-
life, crops, vegetation, and physical
structures caused by exposure to waste
constituents; and

(x) The persistence and permanence
of the potential adverse effects.

(c) In making any determination
under paragraph (b) of this section
about the use of ground water in the

area around the facility, the Regional
Administrator will consider any identi-
fication of underground sources of
drinking water and exempted aquifers
made under § 144.8 of this chapter.

[47 FR 32350, July 26, 1982, as amended at
48 FR 14294, Apr. 1, 1983]

§ 264.94 Concentration limits.

(a) The Regional Administrator will
specify in the facility permit concen-
tration limits in the ground water for
hazardous constituents established
under § 264.93. The concentration of a
hazardous constituent:

(1) Must not exceed the background
level of that constituent in the ground
water at the time that limit is speci-
fied in the permit; or

(2) For any of the constituents listed
in Table 1, must not exceed the respec-
tive value given in that table if the
background level of the constituent is
below the value given in Table 1; or

TABLE 1—MAXIMUM CONCENTRATION OF CON-
STITUENTS FOR GROUND-WATER PROTEC-
TION

Constituent	Maximum concentra- tion ¹
Arsenic.....	0.05
Barium.....	1.0
Cadmium.....	0.01
Chromium.....	0.05
Lead.....	0.05
Mercury.....	0.002
Selenium.....	0.01
Silver.....	0.05
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy- 1,4,4a,5,6,7,8,9a-octahydro-1, 4-endo, endo- 5,8-dimethano naphthalene).....	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer).....	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methox- yphenyl)ethane).....	0.1
Toxaphene (C ₁₂ H ₁₈ Cl ₆ , Technical chlorinated cam- phene, 67-69 percent chlorine).....	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid).....	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypro- pionic acid).....	0.01

¹ Milligrams per liter.

(3) Must not exceed an alternate
limit established by the Regional Ad-
ministrator under paragraph (b) of
this section.

(b) The Regional Administrator will
establish an alternate concentration
limit for a hazardous constituent if he
finds that the constituent will not

pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the Regional Administrator will consider the following factors:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface-water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of con-

tamination and the cumulative impact on surface water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under paragraph (b) of this section about the use of ground water in the area around the facility the Regional Administrator will consider any identification of underground sources of drinking water and exempted aquifers made under § 144.8 of this chapter.

[47 FR 32350, July 26, 1982, as amended at 48 FR 14294, Apr. 1, 1983]

§ 264.95 Point of compliance.

(a) The Regional Administrator will specify in the facility permit the point of compliance at which the ground-water protection standard of § 264.92 applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

(2) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

§ 264.96 Compliance period.

(a) The Regional Administrator will specify in the facility permit the compliance period during which the ground-water protection standard of § 264.92 applies. The compliance period is the number of years equal to the active life of the waste manage-

Environmental Protection

ment area (including a management activity prior to and the closure period.)

(b) The compliance monitoring when the owner or operator compliance monitoring the requirements of

(c) If the owner or operator is engaged in a corrective action at the end of the compliance period specified in paragraph (b), the compliance monitoring is extended until the owner demonstrates that the protection standard of § 264.92 has not been exceeded for a consecutive years.

§ 264.97 General ground-water requirements.

The owner or operator with the following requirements for any ground-water monitoring system developed to satisfy § 264.100 or § 264.100:

(a) The ground-water monitoring system must consist of a number of wells, installed at locations and depths to obtain ground-water samples from the most aquifer that:

(1) Represent the ground water that has been affected by leakage from a regulated unit;

(i) A determination of ground-water quality may include sampling of wells that are not hydraulically connected to the waste management area;

(A) Hydrogeologic conditions may allow the owner or operator to determine what wells are hydraulically connected to the waste management area;

(B) Sampling at other locations may provide an indication of ground-water quality that is representative of or more representative than that provided by the upgradient wells;

(2) Represent the ground-water quality passing the point of compliance;

(3) Allow for the detection of contamination when hazardous constituents are present in the waste management area or the uppermost aquifer;

(b) If a facility contains more than one regulated unit, the water monitoring system required for each regulated unit shall include that provisions for



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

JAN 10 1990

5HR-13

Mr. Dale R. VanDeVelde, Manager
Energy, Environment and Raw Materials
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Dear Mr. VanDeVelde:

We have reviewed the RCRA Facility Investigation Phase II Interim Report which you submitted with your monthly report, dated November 30, 1989. In response to your request in the report, we have assessed the Stage 2 Workplan and we hereby approve the plan, subject to the following change.

The workplan proposes obtaining two surface water grab samples from the Rock River—one along the bank in line with the known contaminant plume and one upstream from that point. We feel that taking only two samples will not provide a sufficient data base upon which to make a risk assessment of the surface water pathway contamination. In addition, it also does not provide any back up should the analytical laboratory be unable to analyze a sample. A loss of either of the two proposed samples would make the entire surface water sampling effort worthless.

The workplan needs to provide justification of the number of surface water samples to be taken, their locations, and the depths at which the samples are to be taken in order to assure that the risk assessment is adequately supported. The workplan should also include the taking of sediment samples, since contaminants often become trapped in the sediments where they can affect the biological chain.

If you have questions concerning this matter, please contact Gale Hruska of my staff at 312/886-0989.

Sincerely,

ORIGINAL SIGNED BY/
KARL BREMER

Karl E. Bremer, Chief
RCRA Permitting Branch

Gale Hruska;jhg 1/5/90

RCRA PERMITS	TYPE	ALPH AUTH	CHIEF	IN- CHIEF	CHIEF	MD-WI CHIEF	CHIEF	RFB CHIEF	Q.A.D. A.D.D.	W.V.
		GRA								
	1/8/90	1/9/90	1/9/90					853	1/10/90	

SEP 30 1988

5HR-13

Certified Mail P593667755
Return Receipt Requested

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Re: RCRA Facility Investigation
ILD 005263157

Dear Mr. VanDeVelde:

We have reviewed your submissions of September 14, 1988, consisting of the Pre-RCRA Landfill Ground Water Sampling and Analysis Plan and the Pre-RCRA Landfill Surface Water and Sediment Sampling and Analysis Plan. The submissions adequately address the requirements in your permit and are hereby approved, subject to the following two conditions:

(1) Condition 1.c.(4).(page 7) and 3.a.(8).(page 11) require that each sampling plan include "procedures and criteria for evaluating analytical results to establish the presence or absence of any plume of contamination." This requirement was not addressed in either submission and, therefore, must now be submitted. The due date for this information is November 1, 1988. As this information is not directly relevant to the actual physical sampling or laboratory analysis, those portions of the investigation may proceed without any further approval.

(2) Compositing of samples from different locations shall not be done. This concern was not specifically addressed in the submissions, but it is of sufficient importance to be explicitly stated.

If you have any questions regarding this matter, please contact Mr. Gale Hruska of my staff, at (312) 886-0989.

Sincerely,

Karl E. Bremer, Chief
RCRA Permitting Branch

Cm 92888

RCRA PERMITS	TYPE	AUCTION	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB CHIEF	O.R. A.D.D.
Gale Hruska, Jng	9/26/88	9/27/88	9/27/88					456	9/29/88

P-30

P 593 667 755

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1983-403-517

PS Form 3800, Feb. 1982

Sent to Mr. Dale R. VanDeVelde Chief Environmental Coordinator Street and No. Northwestern Steel & Wire Co. 121 Wallace Street P.O., State and ZIP Code Sterling, Illinois 61081	
Postage	\$ 25
Certified Fee	85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	90
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 200
Postmark or Date	



5HR-13, Gale Hruska, RPB IL Section

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

4. Article Number

P593667755

Type of Service:

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

8. Addressee's Address (*ONLY if requested and fee paid*)



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

September 14, 1988

RECEIVED

SEP 19 1988

U. S. EPA, REGION V
SWB = PMS

Mr. Gale Hruska
RCRA Activities
U.S. EPA, Region V
P.O. Box A3587
Chicago, IL 60690-3587

RE: RCRA Facility Investigation, ILD005263157

Dear Mr. Hruska:

Enclosed you will find copies of the Pre-RCRA Landfill Ground Water Sampling and Analysis Plan and the Pre-RCRA Landfill Surface Water and Sediment Sampling and Analysis Plan. In addition to the two sampling and analysis plans now being submitted, a hydrologic profile report based upon the information gathered during the August soil sampling and well construction program was scheduled for submittal September 15, 1988. Because information necessary to complete that report is not yet available, the report cannot be submitted at this time. We will submit it to you as soon as possible and advise you of its status in our upcoming monthly report.

Timely review and approval of the enclosed sampling and analysis plans are necessary for the completion of Phase IA field activities before the onset of winter. EPA approval of these documents is currently scheduled for October 1, 1988. We look forward to receiving your comments and approval of the proposed sampling and analysis plans.

Sincerely,

Dale R. VanDeVelde
Chief Environmental Coordinator

Attachment

CERTIFIED MAIL

#P 833 796 598

(P-29)

COPY 2

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature

Robert W. Martin

Date:

9/14/88

Robert W. Martin
Vice-President of Purchasing
Northwestern Steel and Wire Company

5HR-13

AUG 9 1988

Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel & Wire Company
121 Wallace Street
Sterling, Illinois 61081

Re: Revisions to Phase I-A
Implementation Schedule
ILD 005263157

Dear Mr. VanDeVelde:

We have received your letter of July 25, 1988, requesting approval of an early submission of surface water and sediment sampling plans in order to allow sampling to occur in October, 1988. This request is hereby approved.

If you have any questions regarding this matter, please contact Mr. Gale Hruska of my staff, at (312) 886-0989.

Sincerely,

Karl E. Bremer, Chief
RCRA Permitting Branch

Gale Hruska;jhg 8/8/88

LEP 8/9/88

RCRA PERMITS	TYR.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB	O.R. A.D.D.	WM. DIR.
INIT. DATE	8/8/88	8/9/88	C. M. and Longm 8/9/88					JH for KEB 8/9/88		

(P-27)

P 593 667 781

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

507-13 IL Section; RPB; Gale Hruska

★ U.S.G.P.O. 1983-403-517

PS Form 3800, Feb. 1982

Sent to Dale R. VanDeVelde Manager of Energy, Environ- mental and Raw Mater Street and No. Northwestern Steel and Wire 121 Wallace Street P.O., State and Zip Code Sterling, Illinois 61081	
Postage	\$ 25
Certified Fee	85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	90
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 200
Postmark or Date	



● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery
(Extra charge) (Extra charge)

3. Article Addressed to:

Mr. Dale R. VanDeVelde
Manager of Energy, Environmental
and Raw Material
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

4. Article Number

P593667781

Type of Service:

- | | |
|---|--|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Return Receipt
for Merchandise |

Always obtain signature of addressee
or agent and DATE DELIVERED.

5. Signature — Address

X

6. Signature — Agent

X

7. Date of Delivery

8. Addressee's Address (*ONLY if
requested and fee paid*)

JUN 28 1989

5MR-13

Certified Mail P593667781
Return Receipt Requested

Mr. Dale R. VanDeVelde
Manager of Energy, Environmental and Raw Material
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Dear Mr. VanDeVelde:

We have reviewed your revised draft RFI Phase II Work Plan, dated June 19, 1989. The plan adequately addresses the second stage of the investigation of the extent of the vinyl chloride contamination identified in Phase I, and is hereby approved. Please be advised that in the event that the continuing Phase I sampling of surface water and sediment in the unnamed drainage area detects releases of hazardous constituents, further sampling of some of the wells may be required.

If you have any further questions regarding this matter, please contact Gale Hruska, at (312) 886-0989.

Sincerely,

ORIGINAL SIGNED BY/
HAK K. CHO

Karl E. Bremer, Chief
RCRA Permitting Branch

Gale Hruska;jhg 6/27/89

TYPE	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB	O.R. A.D.D.
JHS	JHS	GHA					for HAC 6/28/89	
6/27/89	6/27/89	6/27/89						

P-52

JUN 21 1988

SHS-13

Certified Mail P246372079
Returned Receipt Requested

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Re: NS&W RCRA Facility Investigation
ILD 005263157

Dear Mr. VanDeVelde:

We have received and reviewed your submissions identified as Phase IA Field Investigation Plan (May 11, 1988), Previous Investigations (April 29, 1988), and Soil Sampling and Analysis Plan (May 24, 1988). The two plans and report are approved, subject to following modifications to the Phase IA Field Investigation Plan:

1. Two additional monitoring wells must be added to the proposed down-gradient groundwater monitoring well system, which consists of wells MM-3 through MM-6. The wells shall be evenly spaced along the southern boundary of the Pre-RCRA landfill. (The purpose of adding two more wells is to bring the system into conformance with U.S. Environmental Protection Agency's technical enforcement guidance strategy and to make the spacing conformable to that for the RCRA-permitted landfill. Also, the originally proposed 600-foot spacing would not be adequate to detect narrower plumes of contamination which are not directly in the path of a well.)
2. The surface water and sediment monitoring program must include at least two additional locations in the ponded area to the west of the landfill and an additional site along the unnamed tributary near its confluence with the Rock River.
3. A description and justification of screening depths for the monitoring wells must be provided.

P 246 372 079

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

Sent to Mr. Dale R. VanDeVelde Chief Environmental Coordinator	
Street and No. Northwestern Steel and Wire Co.	
P.O., State and ZIP Code 121 Wallace St. Sterling, Illinois 61081	
Postage	\$ 25
Certified Fee	.85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.90
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 2.00
Postmark or Date	



Gale Hruska SHS-13 IL Section
RPPB

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

4. Article Number

Type of Service:

- | | |
|---|----------------------------------|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD |
| <input type="checkbox"/> Express Mail | |

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

8. Addressee's Address (*ONLY if requested and fee paid*)

Please revise the Field Investigation Plan to incorporate these modifications, and submit these revisions in a format which can be directly incorporated into the original plan.

If you have further questions regarding this matter, please contact Mr. Gale Hruska of my staff, at 312/886-0989.

Sincerely,

~~ORIGINAL~~ SIGNED BY:
KARL E. BREMER

Karl E. Bremer, Chief
RCRA Permitting Branch

Gale Hruska;jhg 6/15/88

sub 2088

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB CHIEF	O.R. A.D.D.	W.C. D.D.
INIT. DATE	6/15/88	GRA	GER for J. Magka					6/29/88		



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

June 19, 1989

Mr. Gale Hruska
RCRA Activities
U.S. EPA Region V
230 South Dearborn
Chicago, IL 60604

RECEIVED
JUN 21 1989

OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

RE: Draft RFI Phase II Work Plan Amendment
ILD 005263157

Dear Mr. Hruska:

Enclosed you will find a revised draft RFI Phase II Work Plan. The previous Work Plan has been expanded to add a monitoring well downgradient of Steel Ball's NPDES Surface Impoundment. In addition, previously proposed monitoring wells MW-9 and MW-10 have been relocated to better monitor conditions northwest of the pre-RCRA landfill. No other changes have been made in the June 9th submittal (other than renumbering of wells). We believe that the amended draft Phase II work plan will better accomplish our mutual goal of determining the nature and extent of contamination at the pre-RCRA landfill site.

We would appreciate your prompt review of this revised Phase II Work Plan so that we may begin the field investigation in a timely manner. Drilling and well construction is currently scheduled to begin the week of July 17, 1989. Please contact me if you have any questions about this amendment.

Sincerely,

Dale R. VanDeVelde
Manager of Energy, Environmental and Raw Material

Enclosure
CERTIFIED MAIL

401-002/glz/0616891s

RECEIVED

JUN 29 1989

U. S. EPA, REGION V
SWB — PMS

P-54

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature

Robert W. Martin

Date: June 19, 1989

Robert W. Martin
Vice-President of Purchasing
Northwestern Steel and Wire Company



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

June 12, 1989

Mr. Gale Hruska
RCRA Activities
U.S. EPA Region V
230 South Dearborn
Chicago, Illinois 60604

RE: RFI Phase II Work Plan - Draft
ILD 005263157

Dear Mr. Hruska:

Enclosed is Northwestern Steel and Wire Company's RFI Phase II Work Plan as requested in your letter received on April 10. It is submitted as a draft for your review and comment. In order to maintain the implementation schedule presented in Table 1, your approval is needed by July 1.

At our meeting on March 28 with you and George Hamper, we discussed the potential for using soil gas monitoring as a field survey technique for detecting vinyl chloride. Unfortunately, soil gas monitoring does not provide a useful option to our specific need. We have reached this conclusion after conversations or meetings with three monitoring vendors, EPA personnel in Edison, New Jersey and U.S. Army officials responsible for site investigations and remediation programs. Lacking this monitoring tool, the Phase II program includes a large number of new ground water monitoring wells as the primary technique for establishing the nature and extent of contamination.

We would appreciate your prompt review of this plan so that we can begin and conclude field activities during favorable weather.

Sincerely,

Dale R. VanDeVelde
Manager of Energy, Environmental and Raw Material

enclosure

401-002/wma/0609891C

RECEIVED
JUN 13 1989

OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

RECEIVED

JUN 16 1989

U. S. EPA, REGION V
SWB — PMS

APR 6 1989

5HR-13

CERTIFIED MAIL P558 235 177
RETURN RECEIPT REQUESTED

Mr. Dale R. VanDeVelde,
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Re: RCRA Facility Investigation
ILD 005263157

Dear Mr. VanDeVelde:

We have reviewed your Draft Pre-RCRA Landfill Phase IA Report, dated January 1989, and have determined that there has been a release of hazardous constituents (vinyl chloride and cis-Dichloroethene) to the groundwater adjacent to the pre-RCRA landfill. Under the provisions of Section II.C. of the Federal portion of your Resource Conservation and Recovery Act (RCRA) permit, U.S. EPA is requiring that Northwestern Steel and Wire Company submit a Phase II Workplan to determine the rate and extent of migration of these constituents as well as their likely precursors-trichloroethene and tetrachloroethene, into the groundwater, surface water, and soil. Information already submitted during Phase I may be incorporated by reference. Submission of the workplan is due 60 days from your receipt of this letter. *met*

As discussed during your meeting of March 28, 1989, with George Hamper and Gale Hruska of my staff, the following activities will be conducted under the Phase I investigation:

1. Additional sediment and/or shallow soil sampling will be done to determine whether the low levels of benzene and toluene detected at two of the sites in the unnamed drainage ditch are indicative of a release or are the result of migration from off-site. *ok*
2. The Phase I surface water sampling, which did not occur because of the drought, will be done this spring.
3. Statistical analyses of the metal levels found in the soils and sediments will be performed to determine if there are any significant deviations from background values.

P 558 235 177

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1983-403-517

PS Form 3800, Feb. 1982

Sent to Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel & Wire Co.
121 Wallace Street
P.O., State and ZIP Code
Sterling, Illinois 61081

Postage

\$ 25

Certified Fee

85

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing
to whom and Date Delivered

90

Return receipt showing to whom,
Date, and Address of Delivery

TOTAL Postage and Fees

\$ 2.00

Postmark or Date



Gale R. Hruska; 5HR-13 IL Sect.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

4. Article Number

P558235177

Type of Service:

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and **DATE DELIVERED**.

5. Signature — Addressee

X

6. Signature — Agent

X

NWSZW 84

7. Date of Delivery

4-8-89

8. Addressee's Address (*ONLY if requested and fee paid*)

If you have further questions regarding these matters, please contact Gale Hruska of my staff, at 312/836-0989.

Sincerely,

ORIGINAL SIGNED BY
WILLIAM E. MUNG

Basil G. Constantelos, Director
Waste Management Division

Gale Hruska;jhg 3/30/89

	TYP.	AUTH	IN. CHIEF	CHIEF	CHIEF	DIRECTOR
JH/S 8/30/89	grw 3/30/89	B/S 3/31/89			so for KEB 4-4-89	WY ret wng 4/5/89



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

November 29, 1988

RECEIVED

DEC 03 1988

U. S. EPA, REGION V
SWB — PMS

Mr. Gale Hruska
RCRA Activities
U.S. EPA Region V
P.O. Box A3587
Chicago, Illinois 60690-3587

RE: Hydrologic Profile Report
ILD005263157

Dear Mr. Hruska:

The enclosed Hydrologic Profile Report is submitted pursuant to Northwestern Steel and Wire Company's RFI Phase IA Workplan. The hydrologic characteristics of the pre-RCRA landfill site are now defined. The ground water sampling program is nearing completion and will be described in the draft report due by February 1, 1989.

Sincerely,

Dale R. VanDeVelde
Chief Environmental Coordinator

CERTIFIED MAIL

RECEIVED
DEC 2 - 1988
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

401-002/1118881C

COPY 2

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature

Robert W. Martin

Date:

11/29/88

Robert W. Martin
Vice-President of Purchasing
Northwestern Steel and Wire Company

7/15/88

5HS-13

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Re: NS&W RCRA Facility Investigation
ILD 005263157

Dear Mr. VanDeVelde:

We have reviewed the revisions to the Phase 1A Field Investigation Plan, which were submitted with your letter of July 1, 1988. This submission adequately addresses our concerns. Therefore, the revised plan is hereby approved.

If you have questions regarding this matter, please contact Mr. Gale Hruska at (312) 886-0989.

Sincerely,

ORIGINAL SIGNED BY
KARL E. BREMER

Karl E. Bremer, Chief
RCRA Permitting Branch

Gale Hruska;jhg 7/14/88

em 7-15-88

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MIN/WI CHIEF	OH. CHIEF	RPB CHIEF	O. P. A.D.D.
INIT. DATE	7/14/88	7/14/88	emw					FSB	
	7/15/88	GPH	for Jm					7/15/88	

203 P-25



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

May 11, 1988

Mr. Gale Hruska
RCRA Activities
U. S. EPA, Region V
P.O. Box A3587
Chicago, IL 60690-3587

RE: Phase IA Field Investigation Plan, RCRA Facility Investigation
ILD005263157

Dear Mr. Hruska:

Enclosed you will find a copy of the Phase IA Field Investigation Plan for the pre-RCRA landfill. The field investigation plan is being submitted according to the schedule specified in the approved workplan. The workplan schedule also indicates EPA approval of the well system design by June 1, 1988. A Soil Sampling and Analysis Plan will be submitted by June 1, 1988, with EPA approval scheduled for June 15, 1988. Timely review and approval of these documents by the EPA is necessary for the completion of monitoring well construction and soil sampling by July 15, 1988 as required by the approved work plan.

We look forward to receiving your comments and approval of the proposed Phase IA Field Investigation Plan.

Sincerely,

Dale R. VanDeVelde
Chief Environmental Coordinator

Attachment

CERTIFIED MAIL

401/504881S

RECEIVED

MAY 16 1988

SWD - RLD
U.S. EPA, REGION V

COPY 2



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

May 9, 1988

Mr. Gale Hruska
RCRA Activities
U.S. EPA, Region V
P. O. Box A3587
Chicago, Illinois 60690-3587

RE: Pre-RCRA Landfill Previous Investigations Report

Dear Mr. Hruska:

Please find attached a drawing identified as Figure 2-1, Soil Boring and Monitoring Locations, 5-3-88. This drawing completes our report - Pre-RCRA Landfill Previous Investigations, April 29, 1988. The drawing should be inserted in the pocket provided in the original document. Please accept our apologies for this inconvenience.

Sincerely,

Dale R. VanDeVelde
Chief Environmental Coordinator

CERTIFIED MAIL

401/0509881C

COPY 2

RECEIVED

MAY 16 1988

SWD - RUC
U.S. EPA, REGION V

Original Drawing incorporated into the above identified report
A-18 G. Hruska 6/6/88

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature

Robert W. Martin

Date:

5/12/88

Robert W. Martin
Vice-President of Purchasing
Northwestern Steel and Wire Company

APR 13 1988

5HS-13

Certified Mail P 246 372 074
Return Receipt Requested

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

Re: NS&W RCRA Facility Investigation
ILD 005263157

Dear Mr. VanDeVelde:

We have received and reviewed your two submissions, both dated March 31, 1988, consisting of the revised Phase 1A Workplan and the Pre-RCRA Landfill Hydrogeologic Setting. The results of our review are as follows:

1. Revised Phase 1A Workplan

The workplan addresses all of the tasks required in the Scope of Work for the RCRA Facility Investigation portion of the permit (Section III), with the understanding that some specified tasks will not be implemented until Phase 1B and Phase 2 are determined to be needed. The phase 1A workplan is, therefore, approved.

2. Pre-RCRA Landfill Hydrogeologic Setting

This submission adequately identifies the general area hydrogeology. Site-specific hydrogeological requirements will be reviewed after receipt of your next submission (Previous Investigations Report), due May 1, 1988.

Please contact Mr. Gale Hruska of my staff, at 312/886-0989, if you have further questions regarding this matter.

Sincerely,

ORIGINAL SIGNED BY/
KARL E. BREMER
Karl E. Bremer, Chief
RCRA Permitting Branch

Gale Hruska;jh

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB CHIEF	O.R. A.D.D.
4/13/88	GRF	GRF	4/13/88					4/13/88	
INIT. DATE	4/12/88	4/12/88							

P 246 372 074

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1984-446-014

3800, Feb. 1982

Sent to Mr. Dale R. VanDeVelde Northwestern Steel & Wire Co.	
Street and No. 121 Wallace Street	
P.O., State and ZIP Code Sterling, Illinois 61081	
Postage	\$ 25
Certified Fee	85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	90
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 2.00
Postmark or Date	

SMB, WMD, RPB, IL UNIT - Gale Hruska

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. 2. ☐ Restricted Delivery.

3. Article Addressed to:

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Co.
121 Wallace Street
Sterling, Illinois 61081

4. Article Number

P 246 372 074

Type of Service:

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee

X

6. Signature — Agent

X

7. Date of Delivery

4-16

8. Addressee's Address (*ONLY if requested and fee paid*)



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

March 31, 1988

RECEIVED

APR 04 1988

U. S. EPA, REGION V
SWB — PMS

Mr. Karl E. Bremer, Chief
RCRA Activities
U.S. EPA, Region V
P.O. Box A3587
Chicago, IL 60690-3587

RE: RCRA Facility Investigation, ILD005263157

Dear Mr. Bremer:

Enclosed you will please find revisions to our Phase IA Workplan submission dated February 26, 1988. These revisions were prepared in response to your March 8, 1988 letter, which identified four tasks addressed in the submittal. These tasks are: Soils Investigation, Surface Water and Sediment Investigation, Data Collection Quality Assurance Plan, and Data Management Plan.

The enclosed revisions address all four tasks. The RFI Workplan now included specific tasks for preparation and submission of a soils investigation (Tasks 5.2 and 6.0) and a surface water and sediment investigation (Tasks 5.3 and 8.0). Preparation of these Workplans and their implementation will be contingent on the adequacy of existing data to determine that soil, surface water, or soil contamination has not occurred. The Data Collection Quality Assurance Plan and the Data Management Plan are not identified as separate tasks. Instead, their requirements will be incorporated into the individual ground water, soils, and surface water and sediment sampling and analysis plans to be submitted as Tasks 6, 7, and 8 respectively.

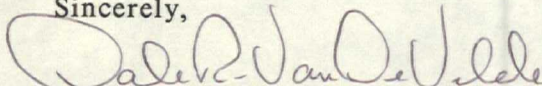
COPY 2

Northwestern Steel and Wire Company / Sterling, Illinois

As requested, the revisions have been formatted to allow the revisions to be directly incorporated into the previous submission. A list of pages to be deleted and/or incorporated has been included.

We look forward to your review and approval of these documents.

Sincerely,



Dale R. VanDeVelde
Chief Environmental Coordinator

Attachments

CERTIFIED MAIL

P 060 143 781

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature

Tom L. Galanis

Date:

3/31/88

Tom L. Galanis

Vice President Steel Division

Northwestern Steel and Wire Company

MAR 08 1988

5HS-13

CERTIFIED MAIL P 298 720 391
RETURN RECEIPT REQUESTED

Mr. Dale R. VanDeVelde
Chief Environmental Coordinator
Northwestern Steel and Wire Company
121 Wallace Street
Sterling, Illinois 61081

RE: RCRA Facility Investigation
ILD005263157

Dear Mr. VanDeVelde:

We have received and reviewed your submission dated February 26, 1988, consisting of the Phase 1A Workplan and the Pre-RCRA Landfill Preliminary Site Description. The results of our review are as follows:

1. Phase 1A Workplan

The workplan has not addressed four tasks which are required in the Scope of Work for the RCRA Facility Investigation portion of the permit (Section III). These tasks are: Soils Investigation (Sub Section 4.B.), Surface Water and Sediment (Sub Section 4.C.), Data Collection Quality Assurance Plan (Sub Section 5.), and Data Management Plan (Sub Section 6.). We realize that there may be adequate existing data to determine that soil, surface water, and/or sediment contamination has not occurred; however, the workplan needs to provide for a sampling program in the event that the data proves inadequate. The present format of the workplan is acceptable.

2. Preliminary Site Description

This submission is acceptable and meets the requirements set forth in the Scope of Work Section III(1) and Section III(2).

Your response to these comments are due three weeks from the date of your receipt of this letter. The format should be such that the information can be directly incorporated into the previous submission. A list of pages to be deleted and/or incorporated should be included.

If you have further questions regarding this matter, please contact Gale Hruska of my staff, at (312) 886-0989.

Sincerely,

Karl E. Bremer, Chief
RCRA Permitting Branch

5HS:G.Hruska.fm:3/07/88

Illinois Section Disc #14

all 3-8-88

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPB CHIEF	O.R. A.D.D.	WMD DIR
INIT. DATE	<i>JK</i> 3-7-88	<i>JK</i> 3-8-88	<i>JK</i> 3-8-88					<i>XSP</i> 3/8/88		



Northwestern Steel and Wire Company

121 WALLACE STREET • STERLING, ILLINOIS 61081

Telephone 815/625-2500 • TWX 910-642-3894

RECEIVED

FEB 29 1988

February 26, 1988

U. S. EPA, REGION V
SWB — PMS

RCRA Activities
U.S. EPA, Region V
P.O. Box A3587
Chicago, IL 60690-3587

ATTN: Gale Hruska

ILD 0005263157

Dear Mr. Hruska:

The enclosed Phase I RFI Workplan is submitted pursuant to Permit Condition II.b. of Northwestern Steel and Wire Company's RCRA permit effective November 4, 1987. The workplan is accompanied by the pre-RCRA landfill Preliminary Site Description.

As described in the workplan, work has begun on specific tasks in this site investigation. The first three tasks of Phase IA are proceeding in accordance with the schedule shown in Table I and Figure 1. Subsequent tasks will await completion of this initial work and your approval of this workplan. If final approval of the workplan occurs after May 1, 1988, the schedule shown in Table 1 will be adjusted accordingly.

The Preliminary Site Description is submitted as though the workplan has been approved. Regardless of workplan approval, the next primary task, description of the hydrogeologic setting, will be completed by April 1. This document will accompany the monthly progress report due at that time.

This letter and the attached documents constitute Northwestern Steel and Wire Company's monthly progress report due March 4, 1988. In addition to the draft workplan, the first of twelve tasks of the Phase IA Implementation Schedule has been completed. Phase I of the RFI Facility Investigation is approximately eight percent complete. The investigation is expected to be seventeen percent complete at the conclusion of the next reporting period.

We look forward to your review and approval of these documents.

Sincerely,

NORTHWESTERN STEEL AND WIRE COMPANY

Dale R. VanDeVelde
Chief Environmental Coordinator

DRV/bl

Certified Mail Return Receipt Requested
#P 060 143 790

COPY

2

203 - P-4